

Abstract

Voice connection paths exist both in analog telephone networks and, more recently, in digital data networks, the voice information being digitized and transmitted in real time over the data network.

5 However, the voice connection paths are used not only for transmitting speech, but also - given appropriate coding based on analog processes - for transmitting data, e.g. FAX information. Because this FAX information, present in the form of image data, is first converted into audio frequencies in the telephone band (300 - 3600 Hz), and thereafter these tones have to be digitized for transmission over the data network, there is a loss
10 of bandwidth, since the bit rate to be transmitted over the digital data network is now higher than the bit rate at which, for example, the FAX machine supplies the information to the voice network.

The invention achieves a bandwidth reduction for these applications, in that both the
15 sending and the receiving terminals use an identical method for transmitting in voice connection paths, but the information to be transmitted is transported in one or more sections via a data network, the modulation method specified by the terminal not being used over the entire transmission link, but rather being effected in the digital data network by a method suitable for that purpose. The conversion of the coding of the
20 information between the data transmission in the digital voice connection path and transmission in the digital data network is first carried out within the data network, so that over some line sections of the data network, the information is transmitted via a coded voice connection path, and over other line sections of the data network, is transmitted using the coding processes of that network. This results in the actual
25 bandwidth reduction.